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(54) **GARMENT SYSTEM INCLUDING AT LEAST ONE SENSOR AND AT LEAST ONE ACTUATOR RESPONSIVE TO THE SENSOR AND RELATED METHODS**

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(57) **ABSTRACT**

Embodiments disclosed herein relate to a garment system including at least one sensor and at least one actuator that operates responsive to sensing feedback from the at least one sensor to cause a flexible compression garment to selectively constrict or selectively dilate, thereby compressing or relieving compression against at least one body part of a subject. Such selective constriction or dilation can improve muscle functioning or joint functioning during use of motion-conducive equipment, such as an exercise bike or rowing machine.